U.S. Application No. 10/568,688
Inventors: Giuseppe COVINO et al.
Attorney Docket No. 09952.0020-00000
Reply to Final Office Action of November 4, 2008

REMARKS

By this Amendment, Applicants have cancelled claim 71 without prejudice or disclaimer, amended claims 37, 54, and 72, and added new claim 75. No new matter has been added. Claims 37-70 and 72-75 remain pending in this application.

I.   Objection to the Specification

In the final Office Action, the specification is objected to under 37 C.F.R. § 1.75(d)(1) as failing to provide proper antecedent basis for the claimed subject matter of independent claim 72. By this Amendment, Applicants have amended claim 72 to remove "computer-readable medium," substituting therefor "computer program product" which is described in, for example, paragraph [0011] of the specification. Accordingly, Applicants respectfully submit that the objection to the specification is moot and should be withdrawn.

II.   Claim Objections

In the final Office Action, claim 71 was objected to "because of the following informalities: claim 71 refers to claim 73, which is not a preceding claim." Final Office Action at 2. Applicants have hereby cancelled claim 71, and added new claim 75, which recites subject matter at least similar to the subject matter recited in cancelled claim 71. Therefore, Applicants respectfully submit that the objection to claim 71 is moot and should be withdrawn.

U.S. Application No. 10/568,688
Inventors: Giuseppe COVINO et al.
Attorney Docket No. 09952.0020-00000
Reply to Final Office Action of November 4, 2008

III.   Claim Rejection under 35 U.S.C. § 103(a)

In the final Office Action, claims 37-74 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. App. Pub. No. 2002/0032769 to Barkai et al. ("Barkai US"), in view of EP 1150454 to Barkai et al. ("Barkai EP"). Of the claims listed in the rejection, claim 71 has been cancelled, and claims 37-70 and 72-74 remain pending. Of the pending claims, claims 37, 54, and 72 are the only independent claims listed in the rejection. Applicants respectfully submit that Barkai US and Barkai EP, regardless of whether they are viewed individually or as a whole, fail to disclose or render obvious all of the subject matter recited in independent claims 37, 54, and 72, or claims 38-53, 55-70, 73, and 74, which depend from a corresponding one of independent claims 37, 54, and 72. Therefore, Applicants respectfully submit that the final Office Action fails to establish a *prima facie* case of obviousness with respect to these claims.

A.   Independent Claim 37

Independent claim 37 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Barkai US in view of Barkai EP. Final Office Action at 3. By this Amendment, Applicants have amended independent claim 37, and Applicants respectfully submit that Barkai US and Barkai EP, taken alone or as a whole, fail to establish a *prima facie* case of obviousness with respect to the subject matter recited in amended independent claim 37.

Amended independent claim 37 is directed to a system architecture for managing a communication network, including, *inter alia*, "[a] base layer comprising distributed process executors . . . , each process executor comprising at least one of a workflow

U.S. Application No. 10/568,688
Inventors: Giuseppe COVINO et al.
Attorney Docket No. 09952.0020-00000
Reply to Final Office Action of November 4, 2008

engine, a rule engine, and a combination thereof . . . , wherein at least one of the

process executors receives instruction information, the at least one process executor

being apt to modify its respective function based on the received instruction information,

thereby changing the operation sequence of the at least one process executor and the

base layer." Barkai US and Barkai EP, taken alone or as a whole, fail to disclose or

render obvious at least this subject matter recited in amended independent claim 37.

The rejection statement acknowledges that Barkai US "does not expressly

disclose said base layer comprising distributed process executors to execute in a

distributed manner processes concerning management of said network, each process

executor comprising at least one of a workflow engine, a rule engine, and a combination

thereof." Final Office Action at 4. In an effort to remedy this acknowledged deficiency

of Barkai US, the rejection statement asserts that Barkai EP "discloses . . . distributed

process executors . . . , each process executor comprising a workflow engine (figure 3;

[0042]-[0044], device components (DCs) are equivalent to distributed process executors

comprising workflow engine . . . ," and further, that it "would have been obvious to a

person of ordinary skill in the art to combine the method disclosed by Barkai_US with

the method disclosed by Barkai_EP regarding a network management layer comprising

distributed process executors . . . , each process executor comprising a workflow

engine," purportedly because "suggestion/motivation of the combination would have

been to provide a system-wide top-down flow with each DC performing its independent

computations which collectively achieve the external request . . . and to provide a

distribute[d] algorithm in a bottom-up flow by propagating to other DCs with change their

U.S. Application No. 10/568,688
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Attorney Docket No. 09952.0020-00000
Reply to Final Office Action of November 4, 2008

state and/or perform their part in the distributed system . . . ." Id. at 4-5. Applicants

respectfully disagree with the rejection statement's obviousness assertions.

Barkai EP discloses a computer network management architecture, wherein a

software and/or hardware "agent" is defined for each network element, and each agent

comprises a plurality of device components (DCs). Barkai EP at [0005]. The device

components, which the final Office Action relies upon as purportedly "equivalent to

distributed process executors comprising workflow engine" (Final Office Action at 4)

model one or more physical and/or logical aspects of their corresponding network

element, each device component "bound and scoped" to cover a specific functionality.

Barkai EP at [0005]. However, the device components of Barkai EP are not similar to

the process executors of the present disclosure. On the contrary, the device

components of Barkai EP represent "wired logic" components implemented in a

predetermined set of steps, as described in Figure 3 of Barkai EP.

Further, the functionality of the device component of Barkai EP does not

necessarily constitute or render obvious a process executor "receiv[ing] instruction

information, the . . . process executor being apt to modify its respective functions based

on the received instruction information, thereby changing the operation sequence of the

. . . process executor and the base layer," as recited by Applicants' amended

independent claim 37. In fact, Barkai EP is silent with respect to how the function of a

process executor could be modified or replaced.

Barkai EP discloses a "top-down flow," where a request arrives from an external

entity and is spread from device component to device component, and each device

component performs independent computations to collectively achieve the external

U.S. Application No. 10/568,688
Inventors: Giuseppe COVINO et al.
Attorney Docket No. 09952.0020-00000
Reply to Final Office Action of November 4, 2008

request. Barkai EP at [0044]. Additionally, Barkai EP discloses a "bottom-up flow" of a distributed algorithm of, for example, defined network or device component events. Through "bottom-up flow," the device components may "propagate [an event] to other DCs which change their state and/or perform their part in the distributed algorithm." Id. However, upon receiving a message from a neighbor device component, a network element, or an external entity, Barkai EP discloses that the device component may "ignore the message or may react by autonomously changing its physical or logical state and/or that of its corresponding area of functionality within the network device . . . ." Barkai EP at [0037] (emphasis added). While Barkai EP discloses the device component's ability to change physical or logical states of the device component, or the change the physical or logical state of the device component's corresponding area of functionality within the network device, Barkai EP fails to disclose modifying or replacing device component functionality. Barkai EP would therefore require reprogramming of at least the device component, if not the device components' respective agent, network management unit, or network management server, in order to implement a new workflow.

For at least these reasons, the prior art references fail to disclose or render obvious all of the subject matter recited in amended independent claim 37. Therefore, Barkai US and Barkai EP, regardless of whether they are viewed individually or as a whole, fail to render amended independent claim 37 *prima facie* obvious. Therefore, Applicants respectfully request reconsideration and withdraw of the § 103(a) rejection of independent claim 37, and claims 38-53, which depend therefrom, based on Barkai US and Barkai EP.

U.S. Application No. 10/568,688
Inventors: Giuseppe COVINO et al.
Attorney Docket No. 09952.0020-00000
Reply to Final Office Action of November 4, 2008

B.   Independent Claim 54

Applicants' amended independent claim 54 is directed to a method of managing a communication network, including, *inter alia*, "executing, in [a] base layer, distributed processes . . . , each of [the] processes comprising at least one of workflows, rules, and combination thereof . . . ; receiving instruction information; and modifying at least one of the distributed processes based on the instruction information, such that an operation sequence of the at least one distributed process is changed." For reasons at least similar to those outlined above with respect to amended independent claim 37, Applicants' amended independent claim 54 is patentably distinguishable from Barkai US and Barkai EP. Thus, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of amended independent claim 54, and claims 55-70 that depend therefrom.

C.   Independent Claim 72

Applicants' amended independent claim 72 is directed to a computer program for product storing instructions for execution by a processor, the instructions performing a method of managing a communication network, the method including, *inter alia*, "executing, in [a] base layer, distributed processes . . . , each of [the] processes comprising at least one of workflows, rules, and a combination thereof . . . ; receiving instruction information; and modifying at least one of the processes based on the instruction information, such that an operation sequence of the . . . process is changed." For reasons at least similar to those outlined above with respect to amended independent claim 37, Applicants' amended independent claim 72 is patentably distinguishable from Barkai US and Barkai EP. Thus, Applicants respectfully request

U.S. Application No. 10/568,688
Inventors: Giuseppe COVINO et al.
Attorney Docket No. 09952.0020-00000
Reply to Final Office Action of November 4, 2008

reconsideration and withdrawal of the § 103(a) rejection of amended independent

claim 72, and claims 73 and 74 that depend therefrom.

IV.   New Claim 75

Applicants' new claim 75 is directed to a system comprising, "a network including

network equipment, and a management system architecture according to any one of

claims 37 through 53 and 73 for managing said network." For reasons at least similar to

those outlined above with respect to amended independent claim 37, Applicants'

respectfully submit that new claim 75 is patentably distinguishable from Barkai US and

Barkai EP.

V.   Conclusion

For at least the reasons set forth above, independent claims 37, 54, and 72

should be allowable. Dependent claims 38-53, 55-70, and 73-75 each depend from a

respective one of allowable independent claims 37, 54, and 72. Therefore, each of

those dependent claims should be allowable for at least the same reasons as their

respective independent claims, as well as by virtue of their recitations of additional novel

and non-obvious subject matter.

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be

entered by the Examiner, placing claims 37-70 and 72-75 in condition for allowance.

Applicants submit that the proposed amendments do not raise new issues or

necessitate the undertaking of any additional search of the art by the Examiner.

Therefore, this Amendment After Final should permit immediate action by the Examiner.

U.S. Application No. 10/568,688
Inventors: Giuseppe COVINO et al.
Attorney Docket No. 09952.0020-00000
Reply to Final Office Action of November 4, 2008

Finally, Applicants submit that the entry of the amendments would place the application in better form for appeal, should the Examiner continue to dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants respectfully submit that the pending claims are neither anticipated nor obvious. Applicants therefore request entry of this Amendment After Final, reconsideration and reexamination of the application, and timely allowance of pending claims 37-70 and 72-75.
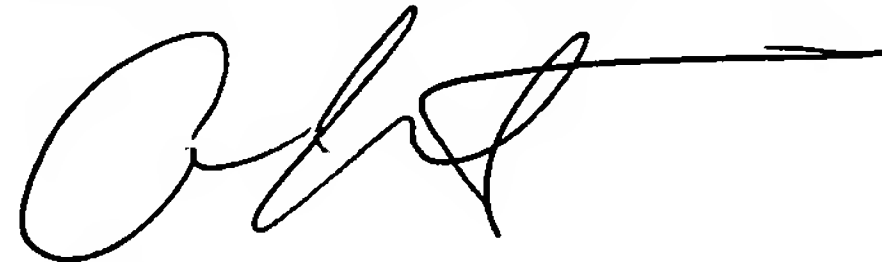
If the Examiner believes that a telephone conversation might advance prosecution of this application, the Examiner is cordially invited to call Applicants' undersigned attorney at (404) 653-6559.

Applicants respectfully note that the final Office Action contains assertions concerning the related art and Applicants' claims. Regardless of whether those assertions are addressed specifically herein, Applicants respectfully decline to automatically subscribe to them.

Please grant any extensions of time required to enter this Amendment After Final and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: March 4, 2009   By: _____

Christopher T. Kent
Reg. No. 48,216